TYPE OR PRINT
IN BLACK INK
(For instructions, see booklet: "How to File an Application to Appropriate Water in California")

APPLICATION NO. 031546 (leave blank)

California Environmental Protection Agency

State Water Resources Control Board
Division of Water Rights
P.O. Box 2000, Sacramento, CA 95812-2000
Tel: (916) 341-5300 Fax: (916) 341-5400
www.waterrights.ca.gov

APPLICATION TO APPROPRIATE WATER

SECTION A: NOTICE INFORMATION

1. APPLICANT/AGENT

	APPLICANT	ASSIGNED AGENT (if any)
Name	Frank & Barbara Greer	
Mailing Address	P.O. Box 786	
City, State & Zip	Esparto, CA 95627	
Telephone	(530) 796-6887	
Fax	(530) 752-9923	
E-mail	flgreer@ucdavis.edu	

2. OWNERSHIP INFORMATION (Please check type of ownership.)

☐ Sole Owner ☐ Limited Liability Company (LLC) ☐ General Partnership*
☐ Limited Partnership* ☐ Business Trust ☒ Husband/Wife Co-Ownership
☐ Corporation ☐ Joint Venture ☐ Other _____

*Please provide a copy of your partnership agreement.

3. PROJECT DESCRIPTION (Provide a detailed description of your project, including, but not limited to, type of construction activity, area to be graded or excavated, and how the water will be used.)

Please See Attachment A & B in Appendix

☐ *For continuation, see Attachment No.* ___

4. PURPOSE OF USE, DIVERSION/STORAGE AMOUNT AND SEASON See Attachment K

	a. PURPOSE OF USE (irrigation, domestic, etc.)	DIRECT DIVERSION: AMOUNT Rate (cfs or gpd)*	DIRECT DIVERSION: AMOUNT Acre-feet per annum	DIRECT DIVERSION: SEASON OF DIVERSION Beginning date (month & day)	DIRECT DIVERSION: SEASON OF DIVERSION Ending date (month & day)	STORAGE: AMOUNT Acre-feet per annum	STORAGE: SEASON OF COLLECTION Beginning date (month & day)	STORAGE: SEASON OF COLLECTION Ending date (month & day)
(1)	Irrigation	74%	27.0	2/15	6/15	35.5	First Rain-Nov. Dec.	Last rain-April May
(2)	Wild life enhancement	18.8%	6.8			9.0	11/1	4/14
(3)	Stock Water/ fire protection/ native hedge row	7.3%	2.7			3.5		
		Total afa =	36.5		Total afa =	48.0		

10/1/04 CE WR

☐ *See Attachment No.* ___

* If rate is less than 0.025 cubic feet per second (cfs), use gallons per day (gpd).

b. Total combined amount taken by direct diversion and storage during any one year will be 48 acre-feet.
c. Reservoir storage is: ☐ onstream ☒ offstream ☐ underground (If underground storage, attach Form APP-UGSTOR.)
d. County in which diversion is located: Yolo County in which water will be used: Yolo

WRIMS GIS map

b. State Planar and Public Land Survey Coordinate Description: SEE Attachments C, D E + F

POD/ PORD #	CALIFORNIA COORDINATES (NAD 27)	ZONE	POINT IS WITHIN (40-acre subdivision)	SECTION	TOWN -SHIP	RANGE	BASE AND MERIDIAN
4	USGS Quad: BROOKS	2	SW ¼ of SW ¼	13 PROJ	10N	3W	MD
1, 2, 3		2	SW ¼ of SE ¼	14	10N	3W	MD
2		2	SE ¼ of SE ¼	14	↓	↓	↓
3		2	SE ¼ of SE ¼	↓	↓	↓	↓

☐ *See Attachment No.* ___

c. Name of the post office most often used by those living near the proposed point(s) of diversion:
Brooks, CA

6. WATER AVAILABILITY

a. Have you attached a water availability analysis for this project? ☒ YES ☐ NO SEE Attachment J
If NO, provide sufficient information to demonstrate that there is reasonable likelihood that unappropriated water is available for the proposed appropriation:
The estimated average flow/capacity in Taylor Creek at point of diversion in early spring is between 690 to 803 cubic feet per second
☐ *See Attachment No.* ___

b. Is your project located on a stream system declared to be fully appropriated by the State Water Resources Control Board during your proposed season of diversion? ☒ YES ☐ NO

c. In an average year, does the stream dry up at any point downstream of your project? ☒ YES ☐ NO If YES, during which months? ☐ Jan ☐ Feb ☐ Mar ☐ Apr ☐ May ☐ Jun ☐ Jul ☒ Aug ☒ Sep ☒ Oct ☒ Nov ☐ Dec

d. What alternate sources of water are available if a portion of your requested diversion season must be excluded because water is not available for appropriation? (e.g., percolating groundwater, purchased water, etc.)
None - many test holes have been drilled on our and adjacent ranches seeking subsurface irrigation water. No sufficient water has been found to date.
☐ *See Attachment No.* ___

7. PLACE OF USE

a.

USE IS WITHIN (40-acre subdivision)	SECTION*	TOWNSHIP	RANGE	BASE & MERIDIAN	IF IRRIGATED Acres	IF IRRIGATED Presently cultivated?
¼ of SW ¼	13	10N	3W	MDB&M	25 acs	☐ YES ☒ NO
¼ of SE ¼	14	10N	3W		Total	☐ YES ☐ NO
¼ of ¼					to be planted	☐ YES ☐ NO
¼ of ¼						☐ YES ☐ NO
¼ of ¼						☐ YES ☐ NO
¼ of ¼						☐ YES ☐ NO
¼ of ¼						☐ YES ☐ NO
¼ of ¼						☐ YES ☐ NO
				Total:	25 Acres: all on Class I Soil	

*Please indicate if section is projected with a "(P)" following the section number.
☐ *See Attachment No.* ___

b. Please provide the Assessor's Parcel Number(s) for the place of APN 047-030-07

SECTION B: MISCELLANEOUS DIVERSION INFORMATION

1. JUSTIFICATION OF AMOUNTS REQUESTED See Attachment K

a. ☒ IRRIGATION: Maximum area to be irrigated in any one year: 25 acres.

CROP	ACRES	METHOD OF IRRIGATION (sprinklers, flooding, etc.)	WATER USE (Acre-feet/Yr.)	SEASON OF WATER USE	
				Beginning date (month & day)	Ending date (month & day)
Almonds	25	Drip-emitters	35.5	4/15	10/15

☐ *See Attachment No.* ___

b. ☐ DOMESTIC: Number of residences to be served: _____ Separately owned? ☐ YES ☐ NO
Number of people to be served: _____ Estimated daily use per person is: _____ gallons per day
Area of domestic lawns and gardens: _____ square feet
Incidental domestic uses: _____
(dust control area, number and kind of domestic animals, etc.)

c. ☒ STOCKWATERING: Kind of stock: Range Cattle Maximum number: 25
Describe type of operation: Range land Pasture
(feedlot, dairy, range, etc.)

d. ☐ RECREATIONAL: Type of recreation: ☐ Fishing ☐ Swimming ☐ Boating ☐ Other _____

e. ☐ MUNICIPAL:

POPULATION List for 5-year periods until use is completed		MAXIMUM MONTH		ANNUAL USE		
Period	Population	Average daily use (gallons per capita)	Rate of diversion (cfs)	Average daily use (gallons per capita)	Acre-foot (per capita)	Total (acre-feet)
Present						

☐ *See Attachment No.* ___ .

Month of maximum use during year: _____ Month of minimum use during year: _____

f. ☐ HEAT CONTROL: Area to be heat controlled: _____ net acres
Type of crops protected: _____
Rate at which water is applied to use: _____ gpm per acre
Heat protection season will begin _____ (month & day) and end _____ (month & day).

g. ☐ FROST PROTECTION: Area to be frost protected: _____ net acres
Type of crops protected: _____
Rate at which water is applied to use: _____ gpm per acre
The frost protection season will begin _____ (month & day) and end _____ (month & day).

h. ☐ INDUSTRIAL: Type of industry: _____
Basis for determination of amount of water needed: _____

i. ☐ MINING: Name of the claim: _____ ☐ Patented ☐ Unpatented
Nature of the mine: _____ Mineral(s) to be mined: _____
Type of milling or processing: _____
After use, the water will be discharged into _____ (watercourse)
in _____ ¼ of _____ ¼ of Section _____, T _____, R _____, _____ B. & M.

SEE Attachments G, H + I

2. **DIVERSION AND DISTRIBUTION METHOD** Diversion will be accomplished use of a small lift pump in an offset sump or box or channel. water will be pumped up approx 12 ft from Creek and emptied into 6" gravity feed pipe.

(a.) Diversion will be by gravity by means of: _____
(dam, pipe in unobstructed channel, pipe through dam, siphon, weir, gate, etc.)

(b) Diversion will be by pumping from: Lift pump → gravity feed pipe → grassed waterway → POND
(sump, offset well, channel, reservoir, etc.)

Pump discharge rate: 300 gpm ☒ cfs or ☐ gpd Horsepower: 3-5 Pump Efficiency: ?
or 216,000 gpd (irrigate 12hrs)

c. Conduit from diversion point to first lateral or to offstream storage reservoir:

CONDUIT (pipe or channel)	MATERIAL (type of pipe or channel lining; indicate if pipe is buried or not)	CROSS-SECTION (pipe diameter, or ditch depth and top and bottom width) (inches or feet)	LENGTH (feet)	TOTAL LIFT OR FALL feet	TOTAL LIFT OR FALL + or -	CAPACITY (cfs, gpd or gpm)
PIPE	PVC Pipe					
	Schedule 120	6" Diameter	approx	10	−	approx
			1500 ft.			300 gpm

☐ *See Attachment No.* — SEE Attachment M in Appendix

d. Storage reservoirs: (For underground storage, complete and attach form APP-UGSTOR)

RESERVOIR NAME OR NUMBER	DAM				RESERVOIR		
	Vertical height from downstream toe of slope to spillway level (feet	Construction material	Length (feet)	Freeboard: dam height above spillway crest (feet)	Surface area when full (acres)	Capacity (acre-feet)	Maximum water depth (feet)
GREER	To be	Existing	approx.	3 ft.	3.0	48 ac/ft	17 ft
POND	determined	Soil	900 ft.		Acres	not incl.	deep
						freeboard	

☐ *See Attachment No.* ___

e. Outlet pipe: Complete for storage reservoirs having a capacity of 10 acre-feet or more.

RESERVOIR NAME OR NUMBER	OUTLET PIPE				
	Diameter (inches)	Length (feet)	Fall: vertical distance between entrance and exit of outlet pipe (feet)	Head: vertical distance from spillway to entrance of outlet pipe (feet)	Dead Storage: storage below entrance of outlet pipe (acre-feet)
GREER	24"	40'	3'	6'	48 acre-feet
POND					

☐ *See Attachment No.* ___

f. If water will be stored and the reservoir is not at the point of diversion, the maximum rate of diversion to offstream storage will be ___ cfs. Diversion to offstream storage will be made by: ☐ Pumping ☒ Gravity

300 gal/min x 60 x 24 hrs = 432,000 gpd ÷ 646,317 = .668 cfs.

3. **CONSERVATION AND MONITORING**

a. What methods will you use to conserve water? Explain. All irrigation will be by drip emitters. Irrigation will be done at night. Root stock will be hybrid which has deep tap root + requires less surface moisture. Will utilize shade trees + drought resistant shrubs around POND. To continue consultations w/ NRCS

b. How will you monitor your diversion to be sure you are within the limits of your water right and you are not wasting water? ☐ Weir ☐ Meter ☒ Periodic sampling ☒ Other (describe) Will use calculations of flow rates + storage capacity by time to monitor diversion. (SEE Attachment M) - Will take approx. 27½ days of diversion in normal rain season.

4. **RIGHT OF ACCESS**

a. Does the applicant own all the land where the water will be diverted, transported and used? ☒ YES ☐ NO

water diversion and use, if applicable. The Greer Ranch (us) is bordered on the west, north-west boundary by Taylor Creek for approx. 2800 feet. The Ranch has never been irrigated from Taylor Creek. We currently have approx 40 acres of dry land farmed orchard (almonds). Riparian Rights since early 1900's

c. List any related applications, registrations, permits, or licenses located in the proposed place of use or that utilize the same point(s) of diversion. None

☐ *See Attachment No.* ___

6. OTHER SOURCES OF WATER

Are you presently using, or do you intend to use, purchased water or water supplied by contract in connection with this project? ☐ Yes ☒ No If yes, please explain: ___

7. MAP REQUIREMENTS

The Division cannot process your application without accurate information showing the source of water and location of water use. You must include a map with this application form that clearly indicates the township, range, section and quarter/quarter section of (1) the proposed points of diversion and (2) the place of use. A copy of a U.S.G.S. quadrangle/topographic map of your project area is preferred, and can be obtained from sporting goods stores or through the Internet at http://topomaps.usgs.gov. A certified engineering map is required when (1) appropriating more than three cfs by direct diversion, (2) constructing a dam which will be under the jurisdiction of the Division of Safety of Dams, (3) creating a reservoir with a surface area in excess of ten acres or (4) appropriating more than 1000 acre-feet per annum by underground storage. See the instruction booklet for more information.

☐ *See Attachment No.* ___

SECTION C: ENVIRONMENTAL INFORMATION

Note: Before a water right permit may be issued for your project, the State Water Resources Control Board (SWRCB) must consider the information contained in an environmental document prepared in compliance with the California Environmental Quality Act (CEQA). This form is not a CEQA document. If a CEQA document has not yet been prepared for your project, a determination must be made of who is responsible for its preparation. If the SWRCB is determined to be responsible for preparing the CEQA document, the applicant will be required to pay all costs associated with the environmental evaluation and preparation of the required documents. Please answer the following questions to the best of your ability and submit with this application any studies that have been conducted regarding the environmental evaluation of your project.

1. COUNTY PERMITS

a. Contact your county planning or public works department and provide the following information:

Person contacted: Bret Hale, Head Planner Date of contact: Sept. 2, 2004
Department: Yolo Co. Dept. Planning & Public Works Telephone: (530) 666-8775
County Zoning Designation: Ag. Preserve.
Are any county permits required for your project? ☒ YES ☐ NO If YES, check appropriate box below:
☒ Grading permit ☐ Use permit ☐ Watercourse ☐ Obstruction permit ☐ Change of zoning
☐ General plan change ☐ Other (explain): ___

b. Have you obtained any of the required permits described above? ☐ YES ☒ NO NRCS needs to complete design/plans before permit can be issued.
If YES, provide a complete copy of each permit obtained.

☐ *See Attachment No.* ___

2. STATE/FEDERAL PERMITS AND REQUIREMENTS

a. Check any additional state or federal permits required for your project:

☐ Federal Energy Regulatory Commission ☐ U.S. Forest Service ☐ U.S. Bureau of Land Management
☐ U.S. Corps of Engineers ☐ U.S. Natural Res. Conservation Service ☒ Calif. Dept. of Fish and Game

c. Does your proposed project involve any construction or grading-related activity that has significantly altered or would significantly alter the bed, bank, or riparian habitat of any stream or lake? ☐ YES ☒ NO
If YES, explain: _____

☐ *See Attachment No.* ___

d. Have you contacted the California Department of Fish and Game concerning your project? ☒ YES ☐ NO
If YES, name and telephone number of contact: Gary Hobgood, Water Rights Coordinator R2 - (916) 983-6920

3. ENVIRONMENTAL DOCUMENTS

a. Has any California public agency prepared an environmental document for your project? ☐ YES ☒ NO

c. If YES, submit a copy of the latest environmental document(s) prepared, including a copy of the notice of determination adopted by the California public agency. Public agency: _____

d. If NO, check the appropriate box and explain below, if necessary:

☐ The applicant is a California public agency and will be preparing the environmental document.*

☒ I expect that the SWRCB will be preparing the environmental document.**

☐ I expect that a California public agency other than the State Water Resources Control Board will be preparing the environmental document.* Public agency: _____

☐ *See Attachment No.* ___

* Note: When completed, submit a copy of the final environmental document (including notice of determination) or notice of exemption to the SWRCB, Division of Water Rights. Processing of your application cannot proceed until these documents are submitted.

** Note: CEQA requires that the SWRCB, as Lead Agency, prepare the environmental document. The information contained in the environmental document must be developed by the applicant and at the applicant's expense under the direction of the SWRCB, Division of Water Rights.

4. WASTE/WASTEWATER

a. Will your project, during construction or operation, (1) generate waste or wastewater containing such things as sewage, industrial chemicals, metals, or agricultural chemicals, or (2) cause erosion, turbidity or sedimentation?
☐ YES ☒ NO
If YES, or you are unsure of your answer, explain below and contact your local Regional Water Quality Control Board for the following information (See instruction booklet for address and telephone no.):

_____

_____

_____

☐ *See Attachment No.* ___

b. Will a waste discharge permit be required for your project? ☐ YES ☒ NO
Person contacted: _____ Date of contact: _____

c. What method of treatment and disposal will be used? _____

_____

_____

☐ *See Attachment No.* ___

5. ARCHEOLOGY SEE Attachment N

a. Have any archeological reports been prepared on this project? ☒ YES ☐ NO * See below

b. Will you be preparing an archeological report to satisfy another public agency? ☐ YES ☒ NO

c. Do you know of any archeological or historic sites located within the general project area? ☐ YES ☒ NO

~~If YES, explain:~~ * The USDA Natural Resources Conservation Service (Woodland office) submitted a 'Request for a Cultural Resources Review' re: this project site

SECTION D: SUBMITTAL FEES

Calculate your application filing fee using the "Water Right Fee Schedule Summary" that was enclosed in the application packet. The "Water Right Fee Schedule Summary" can also be viewed at the Division of Water Rights' website (www.waterrights.ca.gov).

A check for the application filing fee, payable to the "Division of Water Rights" and an $850 check for the Streamflow Protection Standards review fee [Pub. Resources Code § 10005(a)], payable to the "California Department of Fish and Game," must accompany this application. All applicable fees are required at the time of filing. Your application will be returned to you if it is not accompanied by all required fees.

SECTION E: DECLARATION AND SIGNATURE

I declare under penalty of perjury that all information provided is true and correct to the best of my knowledge and belief. I authorize my agent, if I have designated one above, to act on my behalf regarding this water right application.

Frank L Greer	Landowner	9-24-04
Signature of Applicant	Title or Relationship	Date
Barbara B. Greer	spouse	9-24-04
Signature of Co-Applicant (if any)	Title or Relationship	Date

"APPLICATION TO APPROPRIATE WATER" CHECKLIST

Before you submit your application, be sure to:

- ☐ **Answer each question completely in Sections A, B, and C.**
- ☐ **Number and include all necessary attachments.**
- ☐ **Include a legible map that meets the requirements discussed in the instruction booklet (Item B6).**
- ☐ **Include the Water Availability Analysis or sufficient information to demonstrate that there is reasonable likelihood that unappropriated water is available for the proposed appropriation (Item A6).**
- ☐ **Include three complete sets of color photographs of the project site (Item C6).**
- ☐ **Enclose a check for the required fee, payable to the Division of Water Rights, as specified in Section D.**
- ☐ **Enclose a $850 check for the Streamflow Protection Standards review fee, payable to the Department of Fish and Game, as specified in Section D.**

(COPY)

State of California
State Water Resources Control Board
DIVISION OF WATER RIGHTS
P.O. Box 2000, Sacramento, CA 95812-2000
Info: (916) 341-5300, FAX: (916) 341-5400, Web: http://www.waterrights.ca.gov

APPLICATION TO APPROPRIATE WATER BY PERMIT
ENVIRONMENTAL INFORMATION

(THIS IS NOT A CEQA DOCUMENT)

APPLICATION NO. 31546

GREER

The following information will aid in the environmental review of your application as required by the California Environmental Quality Act (CEQA). IN ORDER FOR YOUR APPLICATION TO BE ACCEPTED AS COMPLETED, ANSWERS TO THE QUESTIONS LISTED BELOW MUST BE COMPLETED TO THE BEST OF YOUR ABILITY. Failure to answer all questions may result in your application being returned to you, causing delays in processing. If you need more space, attach additional sheets. Additional information may be required from you to amplify further or clarify the information requested in this form.

PROJECT DESCRIPTION

1. Provide a description of your project, including but not limited to, type of construction activity, structures existing or to be built, area to be graded or excavated and project operation, including how the water will be used.

This information is contained in Attachment A In the Appendix

"The energy challenge facing California is real. Every California needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at http://www.swrcb.ca.gov".
Additional copies of this form and water right information can be obtained at www.waterrights.ca.gov.

GOVERNMENTAL REQUIREMENTS

Before a final decision can be made on your water right application, we must consider the information contained in an environmental document prepared in compliance with the requirements of CEQA. If an environmental document has been prepared, a determination must be made as to who is responsible for the preparation of the environmental document for your project. The following questions are designed to aid us in that determination.

2. Contact your county planning or public works department for the following information:

   a. Person contacted Bret Hale Date of contact Sept. 3, 2004
   Department Yolo County Planning & Public Works Telephone (530) 666-8775

   b. Assessor's Parcel No. APN 047-030-03-1; 030-04-1

   c. County Zoning Designation Agricultural Preserve (Williamson Act)

   d. Are any county permits required for your project? Yes
   If yes, check appropriate space below:
   X Grading Permit, _____ Use Permit, _____ Watercourse Obstruction Permit, _____ Change of Zoning, _____ General Plan Change, Other (explain):
   The County requires a Pond Plan prepared by an engineer. Once pond design and site plan is reviewed and approved a grading permit is issued. County inspects project once construction begins

   e. Have you obtained any of the required permits described above? Will obtain once NRCS engineer has completed design.
   If yes, provide a complete copy of each permit obtained.

3. Are any additional state or federal permits required for your project? No (i.e., from Federal Energy Regulatory Commission, U.S. Forest Service, Bureau of Land Management, Soil Conservation Service, Department of Water Resources (Division of Safety of Dams), Reclamation Board, Coastal Commission, State Lands Commission, etc.) For each agency from which a permit is required provide the following information: Possibly Dept. of Fish & Game.

   Permit type Not sure until DFG Streamflow Protection Standards Review is done

   Person (s) contacted Gary Hobgood Agency CA. Dept of Fish & Game

   Date of contact Sept. 7, 2004 Telephone ( ) (916) 983-6920 (Region R2)

4. Has any public agency prepared an environmental document for any aspect of your project?
   No

   If so, please submit a copy of the latest environmental document (s) prepared, including a copy of the notice of determination adopted by the public agency. If not, explain below whether you expect that a public agency other than the State Water Resources Control Board will be preparing

an environmental document for your application or whether the applicant, if it is a California public agency, will be preparing the environmental document for your project:

N/A - I expect that SWRCB will preparing the environmental document if required. Yolo County will not provide the document

Note: When completed, please submit a copy of the final environmental document (including notice of determination) or notice of exemption to the State Water Resources Control Board. Processing of your application cannot proceed until such documents are submitted.

5. Will your project, during construction or operation, generate waste or wastewater containing such things as sewage, industrial chemicals, metals, or agricultural chemicals, or

cause erosion, turbidity or sedimentation? NO ~~If so, explain:~~ This is an off stream pond. Also, construction at the point of diversion (Taylor Creek) will be undertaken after the creek has dried up. Taylor Creek is a seasonal stream.

If yes or you are unsure of your answer, contact your local Regional Water Quality Control Board for the following information (See attachment for address and telephone number):

Will a waste discharge permit be required for your project? No

Person contacted _____ Date of contact _____

What method of treatment and disposal will be used? _____

6. Have any archeological reports been prepared on this project, or will you be preparing an archeological report to satisfy another public agency? No - See below*

Do you know of any archeological or historic sites located within the general project area?

No If so, explain: _____

* The USDA Natural Resources Conservation Service (Woodland office) submitted a Request for a Cultural Resources Review re: the proposed pond site from the State. A Copy is in Appendix - Attachment N

ENVIRONMENTAL SETTING

These are attached in Appendix

7. Attach **THREE COMPLETE SETS** of color photographs, clearly dated and labeled, showing the vegetation currently existing at the following locations:

(a.) Along the stream channel immediately downstream from the proposed point(s) of diversion

(b.) Along the stream channel immediately upstream from the proposed point(s) of diversion

(c.) At the place(s) where the water is to be used

Note: It is very important that you submit no less than three complete sets of photographs as required above. If less than three sets are submitted, processing of your application will be delayed until you furnish the remaining sets.

8. From the list given below, mark or circle the general plant community types which best describe those which occur within you project area (Note: See footnote denoted by * under Question 11 below):

Tree Dominated Communities
- Subalpine Conifer
- Red Fir
- Lodgepole Pine
- Mixed Conifer
  - Sierran Mixed Conifer
  - White Fir
  - Klamath Mixed Conifer
- Douglas-Fir
- Jeffrey Pine
- Ponderosa Pine
- Eastside Pine
- Redwood
- Pinyon-Juniper
- Juniper
- Aspen
- Closed-Cone Pine-Cypress
- Montane Hardwood-Conifer
- Montane Hardwood
- Valley Foothill Hardwood
  - (Blue Oak Woodland)
  - (Valley Oak Woodland)
  - Coastal Oak Woodland
- Valley Foothill Hardwood-Conifer
  - Blue Oak-(Digger Pine)
- Eucalyptus
- Montane Riparian
- Valley Foothill Riparian
- Desert Riparian
- Palm Oasis
- Joshua Tree

Shrub Dominated Communities
- Alpine Dwarf-Shrub
- Low Sage
- Bitterbrush
- Sagebrush
- Montane Chaparral
- (Mixed Chaparral)
- Chamise-Redshank Chaparral
- Coastal Scrub
- Desert Succulent Shrub
- Desert Wash
- Desert Scrub
- Alkali Desert Scrub

Herbaceous Dominated Communities
- (Annual Grassland)
- Perennial Grassland
- Wet Meadow
- Fresh Emergent Wetland
- Saline Emergent Wetland
- Pasture

Aquatic Communities
- Riverine
- Lacustrine
- Estuarine
- Marine

Developed Communities
- Cropland
- (Orchard) Vineyard Almond
- Urban

Literature source: Mayer, K.E., and W.F. Laudenslayer, Jr., (eds). 1988. A Guide to Wildlife Habitats of California. California Department of Forestry and Fire Protection, Sacramento. 166 pp. (Note: You may view a copy of this document at our public counter at the address given at the top of this form or you may purchase a copy by calling the California Department of Fish and Game, Wildlife Habitat Relationships (WHR) Program at (916) 324-3812).

9. Provide below an estimate of the type, number, and size (trunk/stem diameter at chest height) of trees and large shrubs that are planned to be removed or destroyed due to implementation of the proposed changes. Consider all aspects of your application, including changes in diversion structures, water distribution and use facilities, and changes in the place of use due to additional water development.

It is expected that this project can be accomplished without the removal of any native trees or shrubs. The proposed pond site is an open (fallow) field that was once an almond orchard. Some (approx 20) old almond trees may need to be removed at one end of pond. The diversion point is fairly clear and diversion structure involves small section of Taylor Creek bank. Diversion pipeline is underground and crosses orchard an open pasture.

FISH AND WILDLIFE CONCERNS

10. Identify the typical species of fish which occur in the source(s) from which you propose to divert water and discuss whether or not any of these fish species or their habitat has been or would be affected by your proposed changes. (Note: See footnote denoted by * under Question 11 below):

Taylor Creek is a seasonal creek. There are no fish species in this stream. Stream is essentially dry from August to November or early December. There are frogs when moisture is present

11. Identify the typical species of riparian and terrestrial wildlife in the project area and discuss whether or not any of these species and/or their habitat has been or would be affected by your project through construction of water diversion and distribution works and/or changes in the place of water use. (Note: See footnote denoted by * below): One main purpose of the proposed pond is to enhance the habitat for area's abundant wild life. This is the reason an NRCS EQIP (Environmental Quality Incentives Program) contract was awarded to us. The diversity of wild life include black tail deer, turky, bobcat, fox, racoon, brown bear, skunk, possum, gray squirrel. Bird life include jays, hawks, owls, finches, robbins, wood peckers, etc.

*Note: The purposes of Question 10 and 11 are to provide a preliminary assessment of the presence of typical plant and animal species in the area and whether these species might be affected by your project. Detailed site surveys to quantify populations of specific species or determine the presence of rare or endangered species may be required at a later date. It is very important that you answer these questions accurately. If you are unable to obtain appropriate answers from your local California Department of Fish and Game biologists (See attachment for address and telephone number) or you do not have adequate information or expertise to complete your answers, you should hire a fishery consultant and/or a wildlife consultant to review your project and prepare suitable answers for you. For information on available qualified fishery or wildlife consultants near you, consult your local telephone directory yellow pages under Environmental and Ecological Services, or call the California Environmental Protection Agency, Registered Environmental Assessor (REA) Program, at (916) 324-6881 or the University of California, Cooperative Extension Service (See your local telephone directory white pages).

12. Does your proposed project involve any construction or grading-related activity which has significantly altered or would significantly alter the bed or bank of any stream or lake? No - This is an off stream pond
If so, explain: _____

CERTIFICATION

I hereby certify that the statements I have furnished above and in the attached exhibits are complete to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge.

Date Frank L Greer 9/25/04 Signature Barbara B. Greer 9-25-04

APPENDIX

ATTACHMENT A: Project Description
ATTACHMENT B: Greer Ranch Location
ATTACHMENT C: Greer Ranch Plat Map
ATTACHMENT D: Baseline Map
ATTACHMENT E: Topographic Map
ATTACHMENT F: Pond Location- Quadrangle
ATTACHMENT G: Pond & Diversion View-Topo.
ATTACHMENT H: Pond & Diversion-Arial
ATTACHMENT I: Capay Valley Sub-Watershed
ATTACHMENT J: Taylor Creek cfs/capacity Calculation
ATTACHMENT K: Calculation Of Water Use
ATTACHMENT L: Est. Hill-Range Runoff Calculation
ATTACHMENT M: Pipeline Sizing Calculation
ATTACHMENT N: Request for Cultural Resources Review

Attachment A

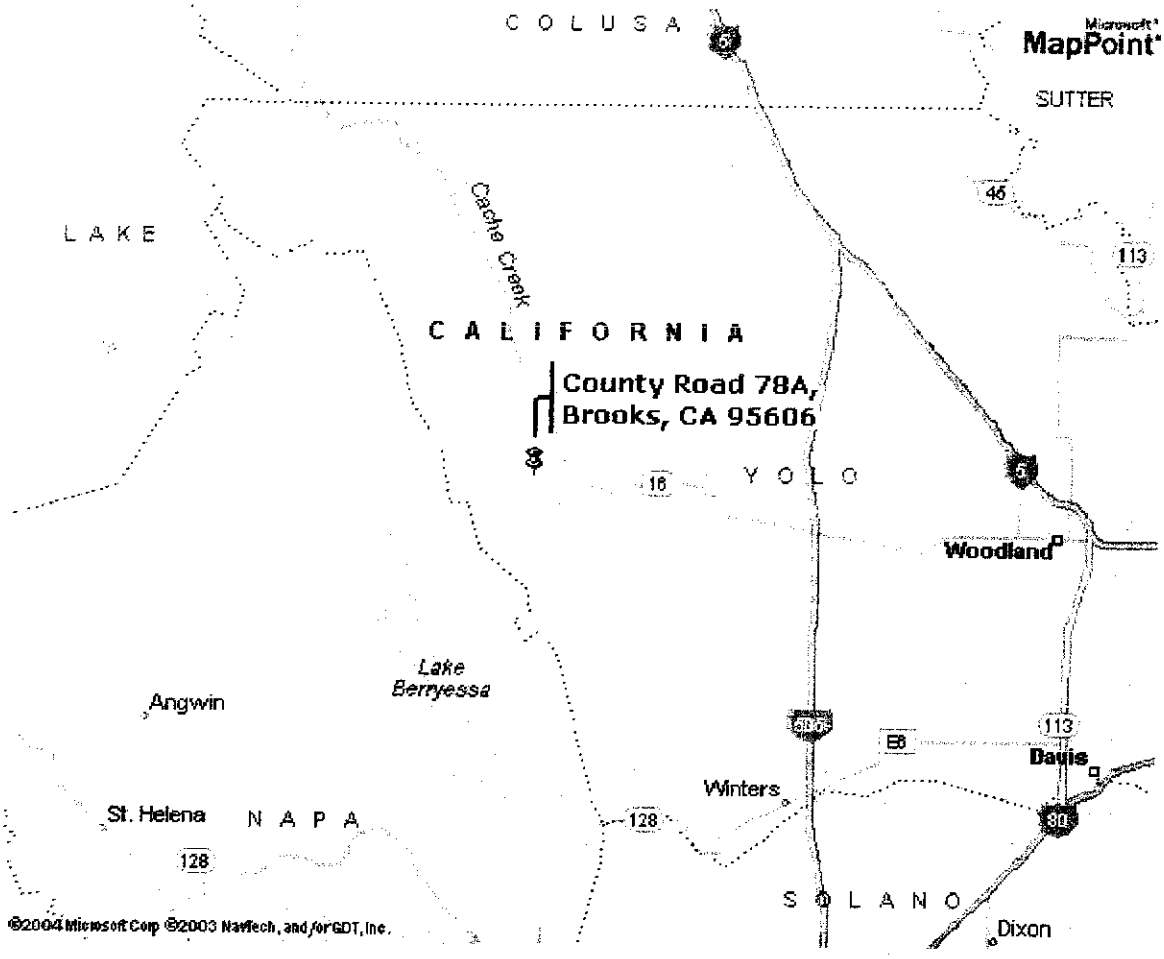
PROJECT DESCRIPTION

The proposed project is a 48 acre-feet capacity pond on the landowners' (Frank & Barbara Greer) ranch. This will be an off-stream, private, multi-use pond which would provide much needed water to our dryland-farmed ranch. The pond water will be used for a combination of orchard irrigation (approx. 25 acres of new almonds), wildlife enhancement for the abundant wildlife in Taylor Canyon, stock water (approx. 25 cows), and fire protection for the ranch. (See Attachments B&F for ranch location and proposed pond site).

The pond will be approx. 3.0 acres in area. It will be constructed by a combination of excavation and embankment of the on-site soil. The 160 acre hill range adjacent to the proposed pond is owned by the Greers. Approximately 100 acres of this range will provide watershed of about 11.50 ac-ft. of water to the pond in average rain years (See Attachment L for this calculation). The remaining portion (36.5 ac-ft.) of the pond's water will be provided from diversion of water from Taylor Canyon Creek which is riparian to the landowners. Taylor Canyon Creek (aka Taylor Creek) forms the western and north-western boundary of the Greer Ranch and provides about 2800 feet of creek frontage (See Attachment D) . Diversion would be by means of a gravity feed , underground , 6" pipline from a point atTaylor Creek to the proposed pond (See Attachment G&H for view of diversion plan). The diversion pipe and lift pump would be installed in a manner which does not obstruct the natural stream flow. Taylor Creek is a seasonal tributary in the Capay Valley sub-watershed of Cache Creek (See Attachment I for map of this watershed area).

We have been awarded an EQIP (Environmental Quality Incentives Program) contract from The USDA Natural Resources Conservation Service- to construct the proposed pond and implement several other conservation projects/practices on our property. The NRCS, Woodland Office, has assisted us in the development of a Whole-Farm Conservation Plan for the Greer Ranch which includes the propsed pond. The pond, diversion system, watershed drainage channels, dam, spillway, etc. will be designed by an NRCS engineer. The maps and calculation sheets contained in this application have been provided by NRCS—Woodland Office. The senior advisor is Phil Hogan (530) 662-2037 x 111. The ag engineer is Ha Truong x122.

Attachment B GREER RANCH LOCATION



ADDRESS: END OF COUNTY ROAD 78A, CAPAY VALLEY (WEST SIDE OF HIGHWAY 16)
From the field office, west on Main Street, Highway 16
through Esparto, Capay, through Capay Valley to Road 78A, turn left on Road 78A

LOCATION MAP

U.S.G.S. Quad Name____Brooks___

Drawn by:___Phil Hogan_____

Date Drawn:_____4/5/04_____

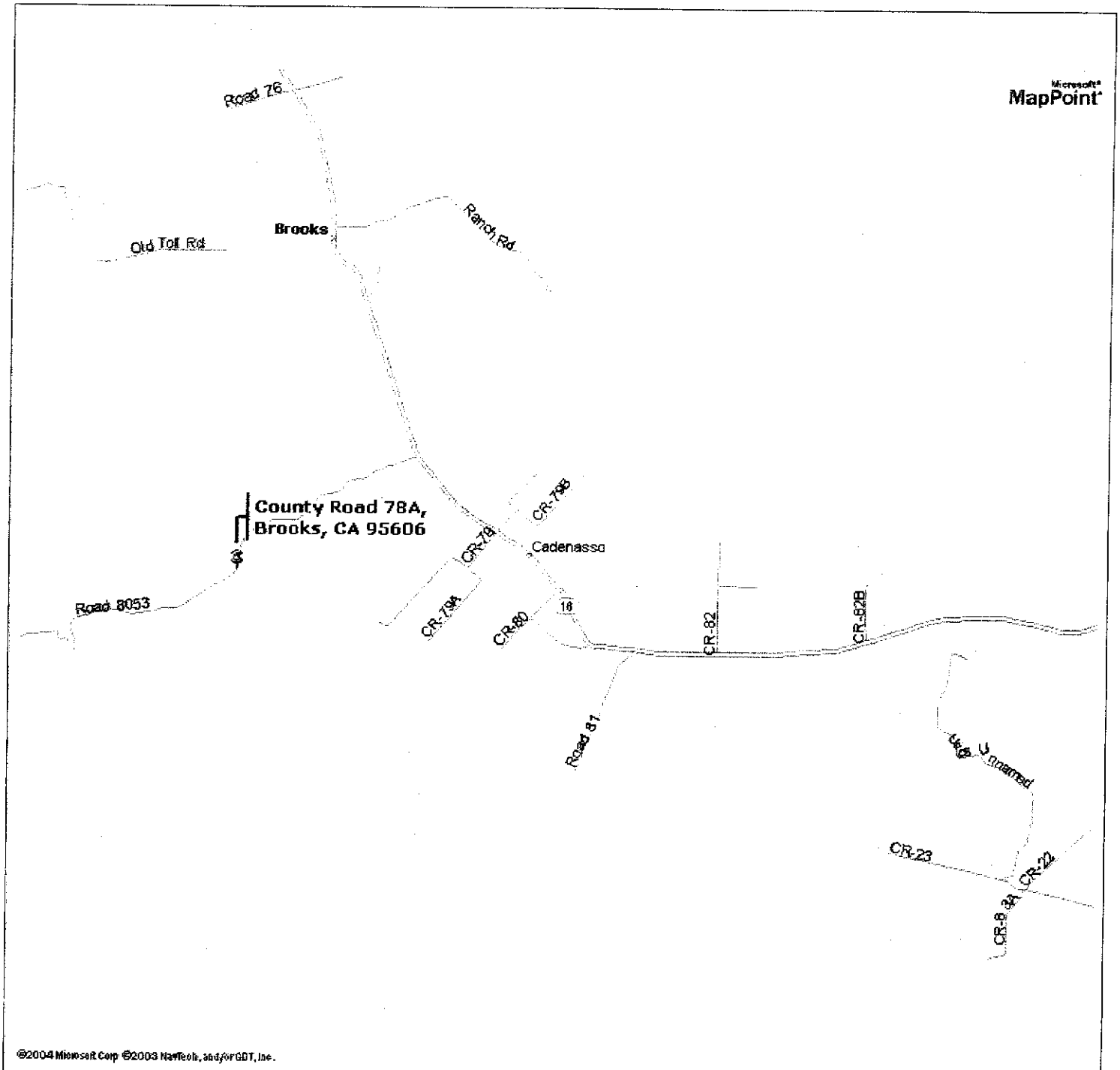
Practice:___Ponds____

Producer:__Frank Greer

Tract #:__86_____

NRCS Natural Resources Conservation Service

Yolo County Service Center



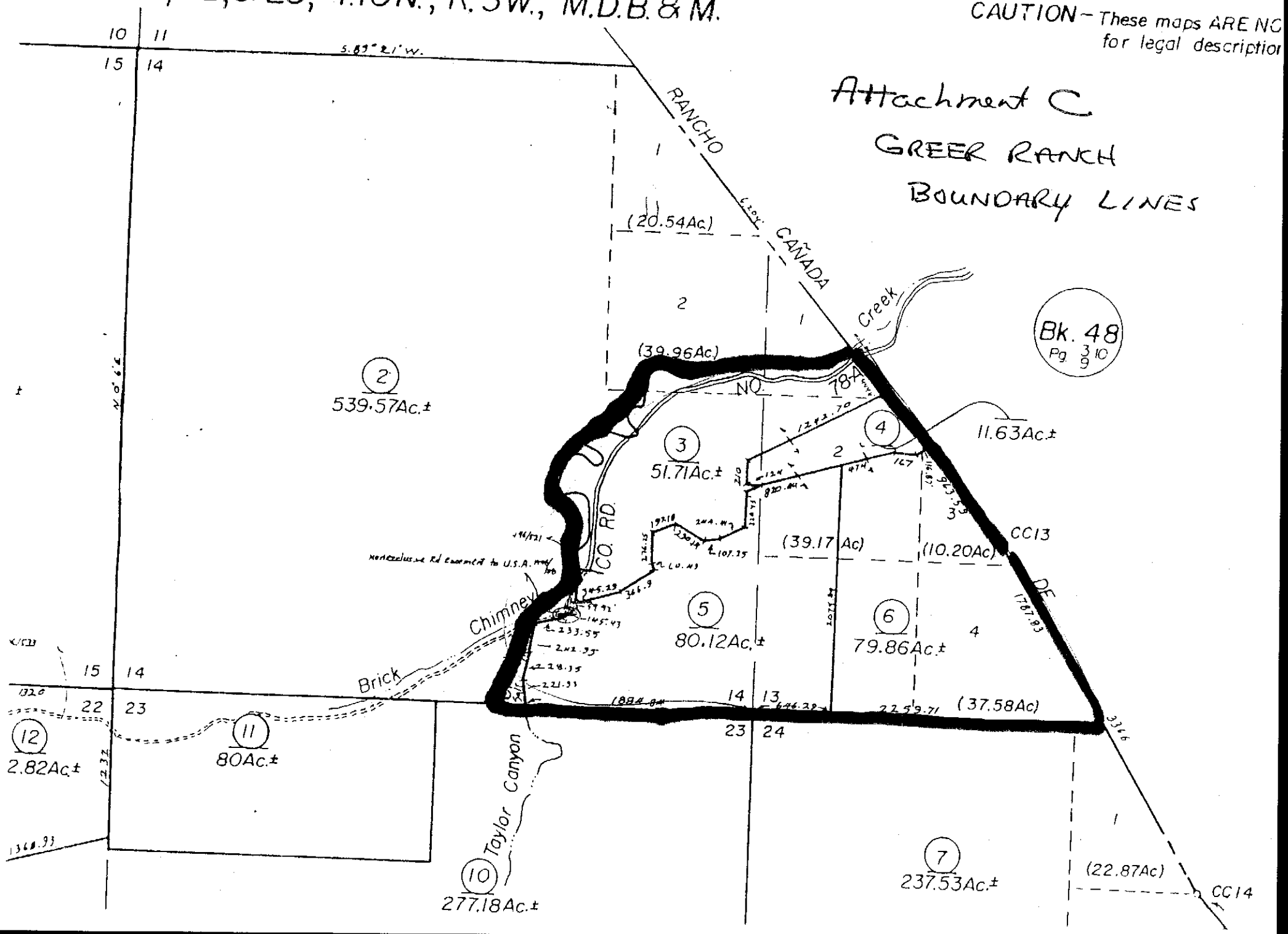
ADDRESS: END OF COUNTY ROAD 78A, CAPAY VALLEY (WEST SIDE OF HIGHWAY 16)

From the field office, west on Main Street, Highway 16
through Esparto, Capay, through Capay Valley to Road 78A, turn left on Road 78A

SEC. 15, 22, & 23, T.10N., R.3W., M.D.B.&M.

CAUTION – These maps ARE NO
for legal description

Attachment C
GREER RANCH
BOUNDARY LINES



Attachment D

BASELINE MAP

Frank Greer

Yolo County RCD
223
Date: 02/11/2004

Woodland
USDA Natural Resources Conservation Serv
JOHN TRAN, UC DAVIS
(530) 662-2037 X 111

Legend

1000 0 1000 2000 Feet

County Road 78A Roads_county_ca113_nad83.shp
Rangeland
Intermittent Steams Draining Berryessa Peak Sub-Watershed Rivers_countydata_ca113_nad83.shp
Clu_06113_1.shp
Orchard

N

TOPOGRAPHIC MAP

Attachment E

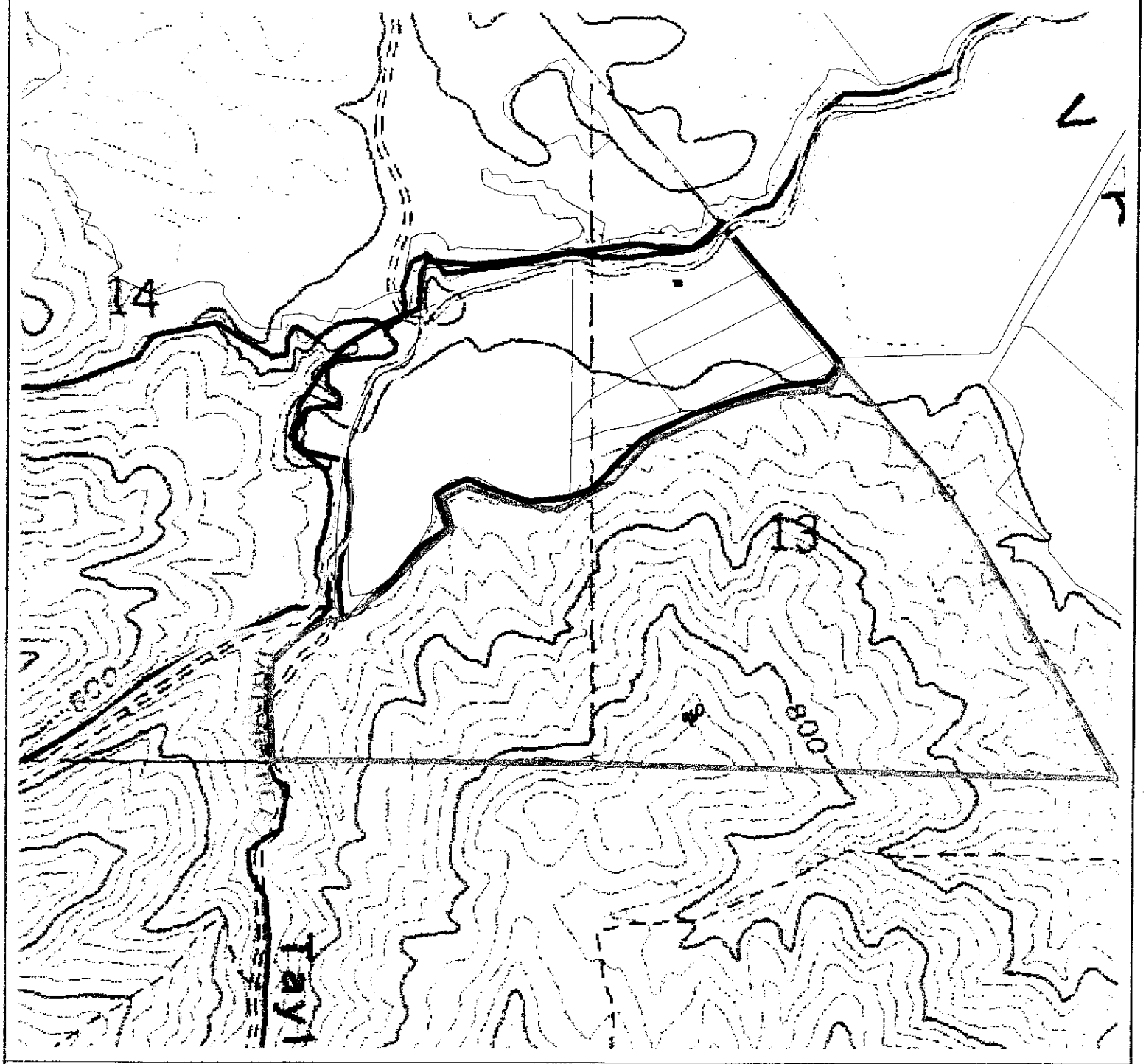
USDA

Frank Greer

Yolo County RCD
223
Date: 02/11/2004

Woodland
USDA Natural Resources Conservation Serv
JOHN TRAN, UC DAVIS
(530) 662-2037 X 111

NRCS Natural Resources Conservation Service



Legend

1000 0 1000 2000 Feet

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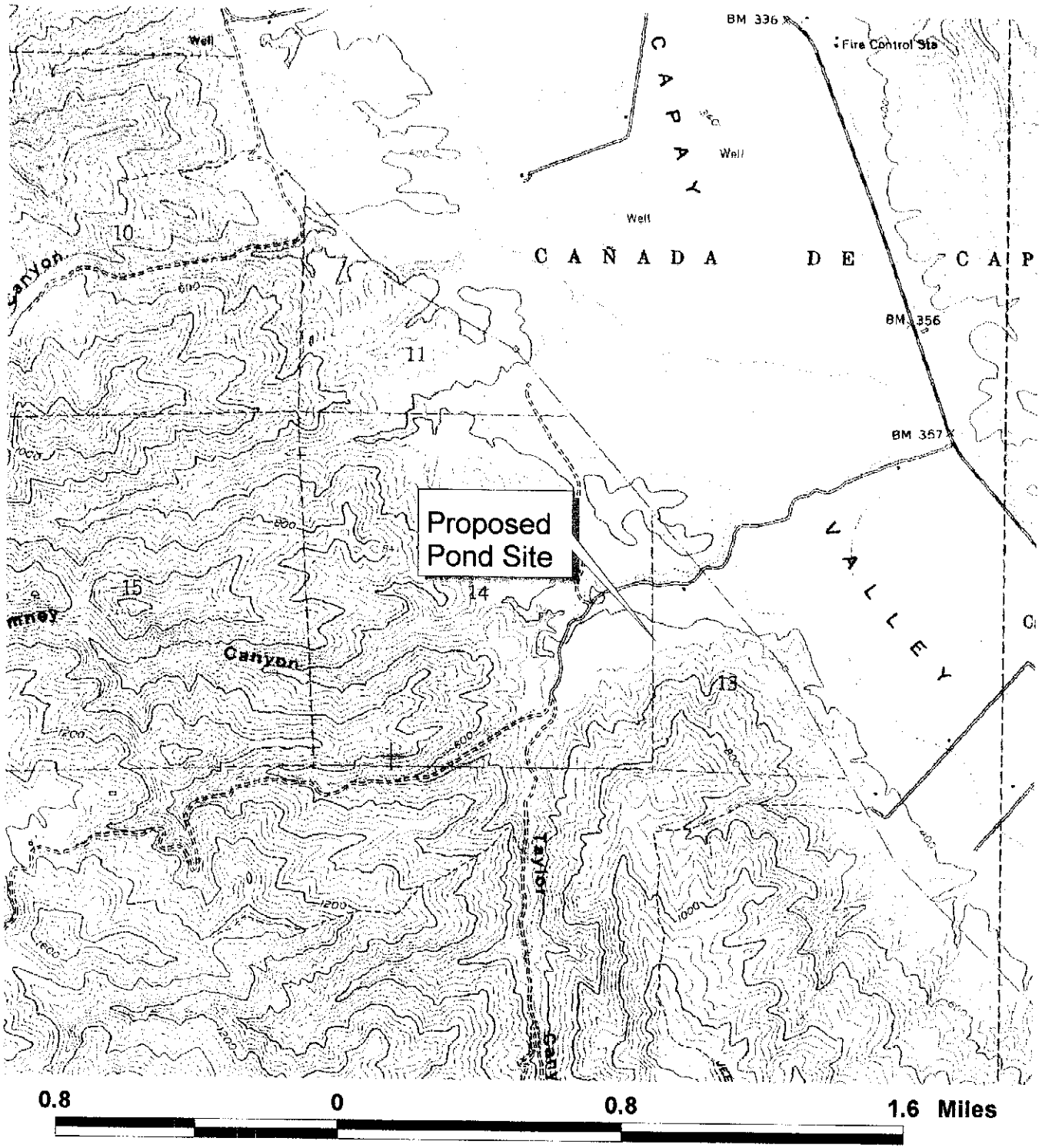
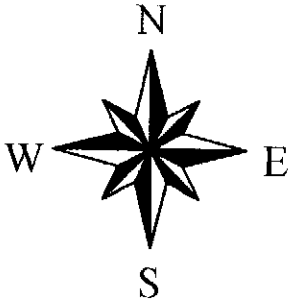
- Rangeland
- Intermittent Steams Draining Berryessa Peak Sub-Watershed Rivers_countydata_ca113_nad83.shp
- Clu_06113_1.shp
- Orchard

N

Attachment F

Frank Greer



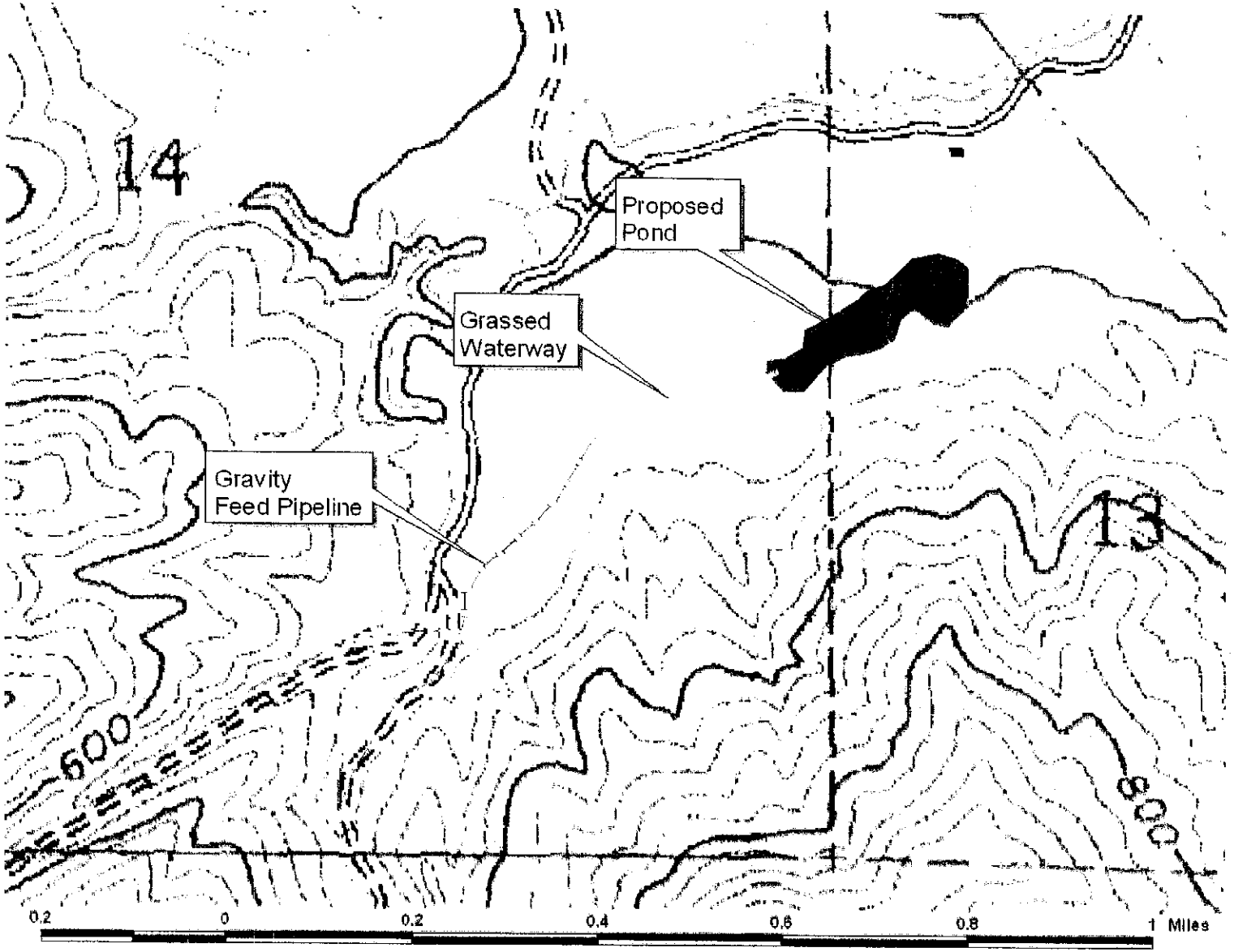


POND LOCATION

Brooks Quadrangle
7.5 Minute Series
SW 1/4 Sec 13, SE 1/4 Sec 14
T 10 N ; R 3 W

Attachment G

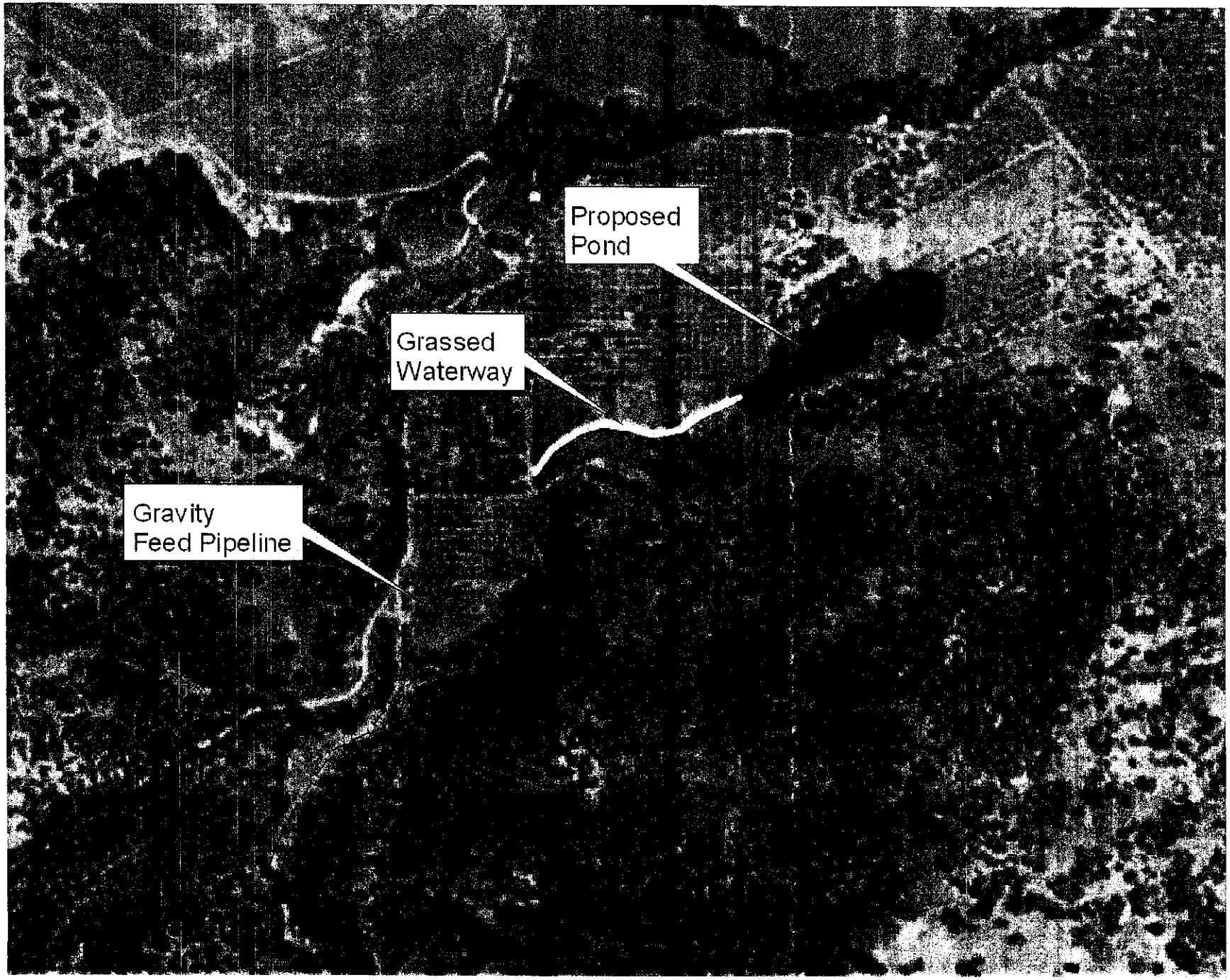
FRANK GREER



Grassed Waterway
Pipeline
Practices (polygons)

Attachment H

FRANK GREER



Capay Valley

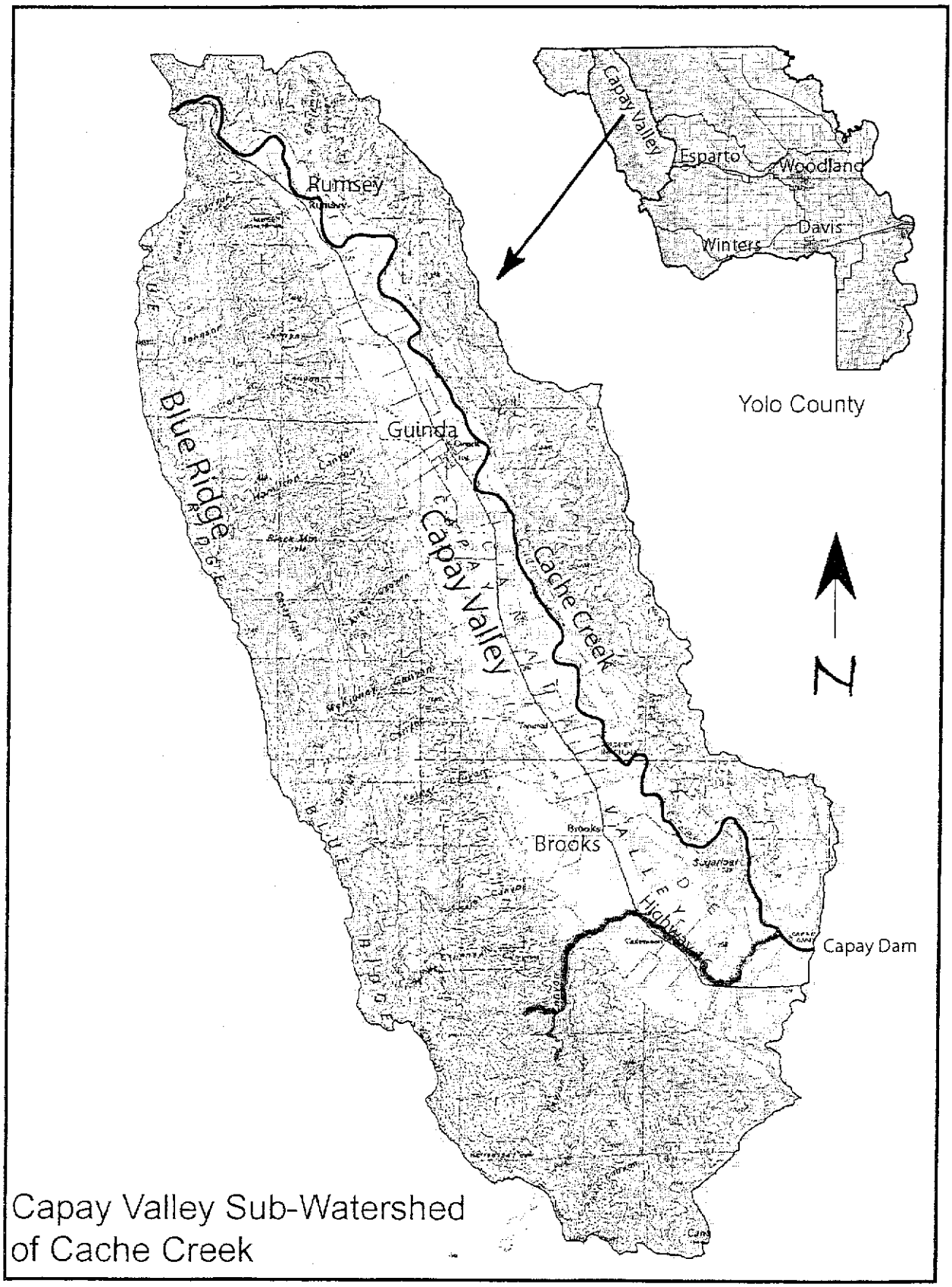


Figure 2: Capay Valley Map

Attachment J

Natural Resources Conservation Service
United States Department of Agriculture

Trapezoidal Channel Section

prepared for

Frank Greer

in

County, Yolo County, CA

Designer:
Date: 09/17/2004

Checker: _____
Date: _____

Taylor Creek

Slope: .003 ft/ft
'n' value: .03

Hydraulic Radius: 3.41
Area: 112.50 sq ft
Velocity: 6.14 ft/sec
Capacity: 690.92 cfs

Sideslope: 1.5:1
Bottom Width: 15 ft
Depth of Flow: 5 ft.
Width @ surface 30 ft

(cont.)

Natural Resources Conservation Service
United States Department of Agriculture

Trapezoidal Channel Section

prepared for

Frank Greer

in

County, Yolo County, CA

Designer:
Date: 09/17/2004

Checker: _____
Date: _____

Taylor Creek

Slope: .003 ft/ft
'n' value: .03

Hydraulic Radius: 3.54
Area: 127.50 sq ft
Velocity: 6.30 ft/sec
Capacity: 803.26 cfs

Sideslope: 1.5:1
Bottom Width: 18 ft
Depth of Flow: 5 ft.
Width @ surface 33 ft

Attachment K

CALCULATION OF WATER USE

① Irrigation (Almond trees)

28 gallons/day per tree (min.) × 110 trees/acre

× 25 total acres = 77,000 gals/day

× 150 days (irrigation season)

= 11,550,000 Total gallons ÷
325,850 gallons per acre/ft.

= 35.45 Acre feet

② Stock Water (approx. 25 head)

15 gallons/day × 25 cows = 375 gals/day

× 365 days = 136,875 Total gallons

③ Hedge row of Native Trees & S. Shrubs

1100 feet (row) × 12 feet (width) ÷ 100 sq.ft

= 13200 sq. ft × 18.5 gallons/day

× 150 days = 366,300 Total gals

④ Evaporation Loss (estimate)

approx. 1.6 acre/feet × 3.0 Acre Area of Pond

= 4.8 Total Loss (Minimum)
Acre Feet

Attachment L

EFH-2 ESTIMATING RUNOFF AND PEAK DISCHARGE Version 1.1.0

Client: Frank Greer
County: YOLO State: CA
Practice: 378 Pond
Calculated By: HT Date: 8/11/2004
Checked By: _____ Date: _____

Drainage Area:	92	Acres (provided from RCN Calculator)
Curve Number:	78	(provided from RCN Calculator)
Watershed Length:	3000	Feet
Watershed Slope:	16	Percent
Time of Concentration:	.339	Hours (calculated value)
Rainfall Type:	IA	

Storm Number	1	2	3	4	5	6	7
Frequency (yrs)	2	5	10	25	50	100	
24-Hr rainfall (in)	3.5	4.1	5.1	6.1	6.6	7.0	
Ia/P Ratio	0.16	0.14	0.11	0.09	0.09	0.08	0.00
Used	0.16	0.14	0.11	0.10	0.10	0.10	0.00
Runoff (in)	1.50	1.97	2.80	3.67	4.11	4.47	0.00
(ac-ft)	11.50	15.10	21.47	28.14	31.51	34.27	0.00
Unit Peak Discharge (cfs/acre/in)	0.190	0.202	0.216	0.221	0.221	0.221	0.000
Peak Discharge (cfs)	26	37	55	75	84	91	

(cont.)

EFH-2

ESTIMATING RUNOFF AND PEAK DISCHARGE

Version 1.1.0

Curve number Computation

Client: Frank Greer
County: YOLO
Practice: 378 Pond
Calculated By: HT
Checked By: _____

State: CA

Date: 8/11/2004
Date: _____

COVER DESCRIPTION		Acres (CN) Hydrologic Soil Group			
		A	B	C	D
OTHER AGRICULTURAL LANDS					
Pasture, grassland or range	poor	-	84(79)	-	-
Brush - brush, weed, grass mix	poor	-	8(67)	-	-
Total Area (by Hydrologic Soil Group)			92		
TOTAL DRAINAGE AREA: 92 Acres				WEIGHTED CURVE NUMBER: 78	

Attachment M

PIPELINE SIZING WORKBOOK Version 1.2

United States Department of Agriculture NRCS Natural Resources Conservation Service

Project:	Frank Greer	County:	Yolo	Designed by:		Checked by:	
Pipeline location:	6" Pipeline			Date:		Date:	

Press Change at End=	-10.04 Feet	Ave Press Change= -10.04 Feet	Travel Time= 10.7 Minutes

Sec Num	Length (Feet)	Outlet (GPM)	Flow (GPM)	Elev Diff (Feet)	Pipe Type	Nom Size	Pipe ID (Inches)	C	Fr Loss (Feet)	Tot Pr Change (Feet)	Vel (FPS)
1	2000.0	300.000	300.000	0.00	SDR41	6	6.270	150	-10.04	-10.04	3.1

$$50 \text{ AC-FT} \left| \frac{325{,}800 \text{ gal}}{1 \text{ AC-FT}} \right| \frac{}{300 \text{ gal/MIN}} \left| \frac{1 \text{ hr}}{60 \text{ MIN}} \right| \frac{1 \text{ day}}{24 \text{ hr}} = 37.8 \text{ days}$$

6" PVC

Diversion + Watershed

(1) $48 \text{ Ac-ft} \left| \frac{325{,}850 \text{ gal}}{1 \text{ Ac-ft}} \right| \frac{}{300 \text{ gal/min for 6" PVC}} \left| \frac{1 \text{ hr}}{60 \text{ min.}} \right| \frac{1 \text{ day}}{24 \text{ hr}}$

$= 36.21$ days

for Total Pond

* Diversion portion

(2) $36.5 \text{ AC-ft} \left| \frac{325{,}850 \text{ gal}}{1 \text{ ac-ft}} \right| \frac{}{300 \text{ gal/min}} \left| \frac{1 \text{ hr}}{60 \text{ min.}} \right| \frac{1 \text{ day}}{24 \text{ hr}}$

$= 27.53$ days

Attachment N

REQUEST FOR CULTURAL RESOURCES REVIEW

Complete for All NRCS Projects Per Bulletin IN 420-2-1

Part 1. To be completed by the Field Office.

Land User: FRANK GREER County: YOLO

Project: PONDS Field Office: Woodland

Practice Code	Practice Name/Description	Acreage/Lin. Feet
	2 PONDS	

Provide the legal description of the entire Area of Potential Effect (APE)

USGS Quad: BROOKS Legal Desc: SW 1/4 Sec 13 T 10 R 3

USGS Quad: _____ Legal Desc: SE 1/4 Sec 14 T 10 R 3

USGS Quad: _____ Legal Desc: ____ 1/4 Sec ____ T ____ R ____

USGS Quad: _____ Legal Desc: ____ 1/4 Sec ____ T ____ R ____

Identify all quadrangles and all sections to the first 1/4 subdivision. Continue on back of form if necessary.

Has APE been field checked for cultural resources? ☐ Yes ☑ No

How much bare ground was visible at the time of the field check? _____%

Are any known cultural resources in the APE or immediate vicinity? ☐ Yes ☑ No

Are any buildings 50 years or older in the APE? ☐ Yes ☐ No

If there are known resources, locate on quad map and briefly describe (continue on back if necessary):

Project Start Date: 9/1/2004 NOTE: A minimum of 90 days may be required to complete SHPO consultation.

Requested by: Phil Hogan Date: October 1, 2004

Phone: (530) 662-2037 x 111 CRT Course Completed ☑ No ☐ Yes Date no sé

ATTACH A COPY OF THE 7.5 MINUTE USGS QUADRANGLE WITH APE, PRACTICES AND SITES MARKED

Part 2. Completed by Cultural Resources Specialist (CRS)

Date Received: _____

Project Number: _____

SHPO File Search Results:

_____ There are no recorded Cultural Resources in APE.

_____ There are recorded Cultural Resources in APE.

_____ There is a high potential for Cultural Resources in APE.

Comments: _____

Action to be Taken: The completed form and any further work should be documented in the case file

_____ Recommend Monitoring. There are cultural resources adjacent to the APE.

_____ Recommend Survey*. A high probability exists to impact cultural resources.

_____ Recommend SHPO Consultation*. Cultural resources are recorded in the APE.

_____ Other: _____

_____ Date: _____

Cultural Resources Specialist

*Contact the CRS for further information.

(rev 12/02)

UNIVERSITY OF CALIFORNIA, DAVIS

BERKELEY ✱ DAVIS ✱ IRVINE ✱ LOS ANGELES ✱ MERCED ✱ RIVERSIDE ✱ SAN DIEGO ✱ SAN FRANCISCO SANTA BARBARA ✱ SANTA CRUZ

Fax

Counseling and Psychological Services
219 North Hall
One Shields Avenue
Davis CA 95616
Phone: 530-752-0871
Fax: 530-752-9923

Attn: Whealen Tay

To: SWRCB Divion of Water Rights **From:** Frank Greer, PhD.

Fax: (916) 341-5400 **Phone:** (530) 752-0871

Phone: _____ **Date:** Oct 4, 2004

Re: Amended Attachment G for water Rights **Pages:** 2 (including coversheet)

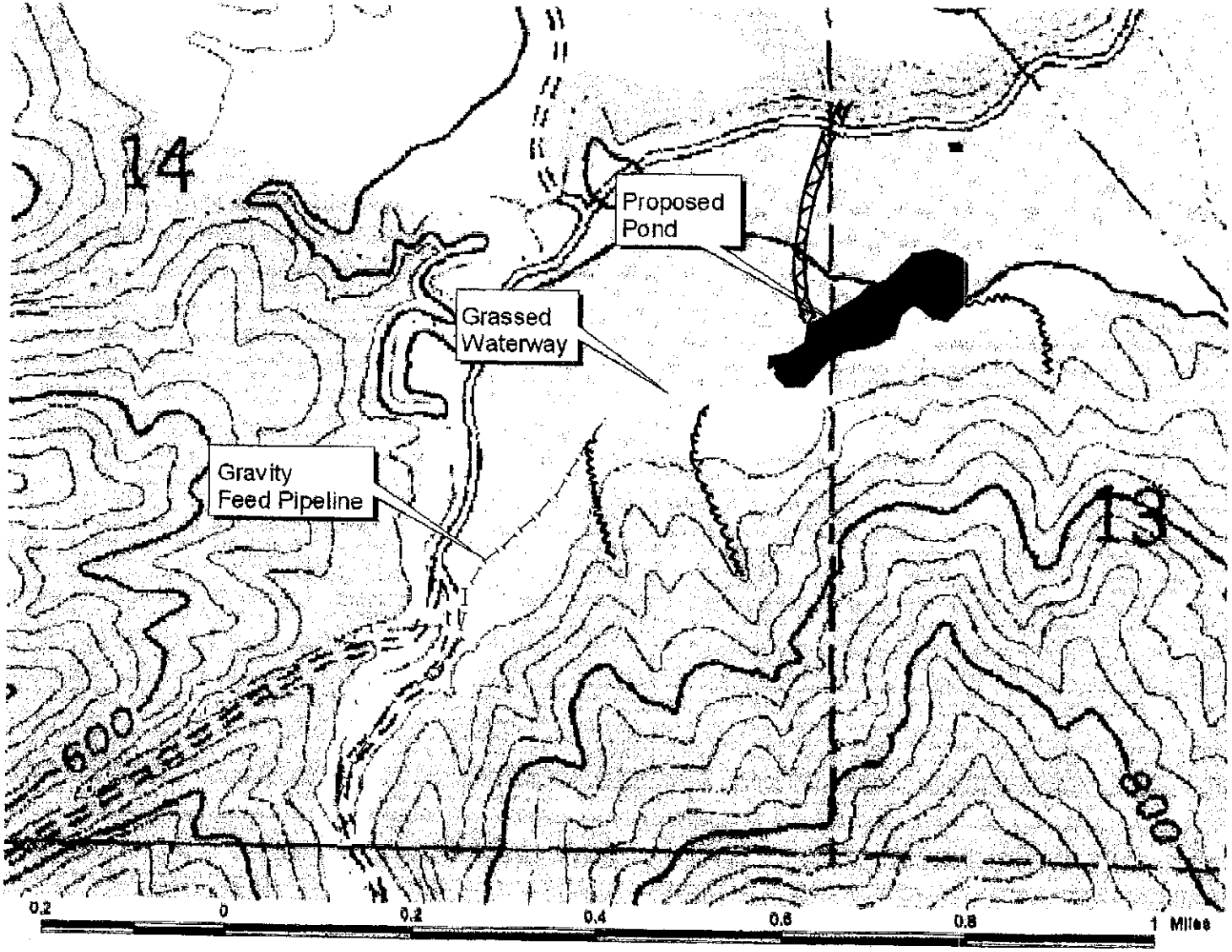
Message: Whealen,

I am faxing an amended Attachment G as per your request. This shows proposed channel to catch hill run off for Pond. Also I added the return spillway to Taylor Creek (overflow). As I understand if approved we will be able to draw up to 48 Acre ft of water from Taylor Creek? Any questions contact me. 752-0871 W ~~796-6887~~ H

Thanks Frank Greer.

AMENDED Attachment G

FRANK GREER



Grassed Waterway
Pipeline
Practices (polygons)

channels for hill run-off ≈ 3' width

grassed spillway (overflow) return to Taylor Creek ≈ 10' width